IN THE DRAWINGS

In accordance the Examiner's request, Applicant submits *Replacement Sheets* for FIGS. 1-14. The Examiner objects to the original FIGS. 1-14 because the original drawing sheets each contain the label "SUBSTITUTE SHEET (RULE 26)." The *Replacements Sheets* exclude this label and comply with 37 CFR 1.121(d). No new matter is believed presented by this amendment, as the *Replacements Sheets* are replicas of the original drawing sheets except for the exclusion of the objectionable label.

REMARKS/ARGUMENTS

In the 2 December 2009 *Office Action*, the Examiner rejects all pending claims, Claims 1-10, 13-33, 36-52, 55-69, and 72-97. Applicant thanks the Examiner with appreciation for the careful consideration and examination given to the Application. In response to the *Office Action*, Applicant provides the below remarks and presents new claims and clarifying claim amendments.

Applicant submits this *Response* solely to facilitate prosecution. As such, Applicant reserves the right to present new or additional claims in this Application that have scope similar to, or broader than, those originally filed. Applicant also reserves the right to present additional claims in a later-filed continuation application that have scope similar to, or broader than, those originally-filed. Any amendment, argument, or claim cancellation is not to be construed as abandonment or disclaimer of subject matter.

By the present *Response*, Claims 1, 5, 7-10, 13, 16-20, 25, 28, 30-33, 36-37, 40-44, 47, 49-52, 55-61, 64, 66-69, 72-74, and 98-114 are pending in the application. Claims 1, 5, 7-10, 13, 16-20, 25, 28, 30-33, 36-37, 40-44, 47, 49-52, 55-61, 64, 66-69, and 72-74 are currently amended; Claims 2-4, 6, 11-12, 14-15, 21-24, 26-27, 29, 34-35, 38-39, 45-46, 48, 53-54, 62-63, 65, 70-71, 75-97 are canceled; and Claims 98-114 are newly presented. No new matter is believed introduced by this submission, as support for the new claims and claim amendments can be found in the *Specification*, as published in U.S. Patent Application Pub. No. 2007/0154018, at least at ¶¶ [0048], [0050]-[0052], [0056]-[0057], and [0061]-[0062].

It is respectfully submitted that the present Application is in condition for allowance for at least the following reasons.

I.   Interview Summary Statement

Applicant sincerely thanks Examiner Moorthy for the telephonic interview held on 23 February 2010 between Examiner Moorthy and Attorney Alicia Brewster. During the interview, the pending claims and proposed claim amendments were discussed. The Examiner suggested that Applicant incorporate into the claims the concept of selecting an encryption scheme identified by a hash value. The Examiner also suggested that Applicant file a formal response to the *Office Action*, at which point an additional search would be conducted.

If for any reason the Examiner does not consider the foregoing written summary complete and accurate, the Examiner is respectfully requested to contact the undersigned so that the undersigned can supplement this statement.

II.   Objections to the Drawings

The Examiner objects to FIGS. 1-14 on the grounds that the drawing sheets each contain the label "SUBSTITUTE SHEET (RULE 26)." Applicant submits new drawing sheets in compliance with 37 CFR 1.121(d) and, therefore, respectfully requests withdrawal of this objection.

III.   Claim Rejections Under §§ 102 and 103

The Examiner rejects each of the pending claims under either § 102 or § 103. Specifically: (a) Claims 1, 2, 6-7, 9-10, 15-18, 20, 25, 29-30, 32-33, 38-44, 48-49, 51-52, 57-61, 65-66, 68-69, 74-76, 80-84, 86, 91, and 95-97 are rejected under § 102(e) as allegedly being anticipated by U.S. Patent No. 7,242,772 to Tehranchi; (b) Claims 3-5, 21-24, 26-28, 45-47, 62-64, 77-79, 87-90, and 92-94 are rejected under § 103(a) as allegedly being obvious a combination of Tehranchi and U.S. Patent Application Pub. No. 2005/0074116 to Hall; (c) Claims 8, 31, 50, and 67 are rejected under § 103(a) as allegedly being obvious over a combination of Tehranchi and U.S. Patent Application Pub. No. 2006/0140197 to Robinson; and (d) Claims 13-14, 19, 36-37, 55-56, 72-73, and 85 are rejected under § 103(a) as being patentable over a combination of Tehranchi and U.S. Patent No. 6,865,658 to Tomori.

Although Applicant does not concede the validity of the Examiner's rejections, Applicant presents claim amendments and new claims to facilitate prosecution. Applicant respectfully submits that all of the Examiner's rejections are now moot in light of the claim amendments and new claims.

As the Examiner will recall, embodiments of the claimed invention are directed toward apparatuses, systems, and methods for cryptographically processing data. Some embodiments of the claimed invention can encrypt one or more data segments, while some embodiments can decrypt one or more encrypted data segments.

Beneficially, the claimed invention provides a means for changing encryption schemes without having to notify a recipient of the change. Both sender and recipient maintain rules for

encrypting and decrypting data, and the data segments themselves indicate which encryption and decryption schemes should be applied to various portions of each data segment. More specifically, two or more portions can be identified within each data segment. In some embodiments of the claimed invention, a hash value of the first portion can identify a first encryption scheme from among a plurality of encryption schemes, and that first encryption scheme can be used to encrypt a second portion of the data segment. In some further embodiments of the claimed invention a hash value of the second portion of the data segment can identify a second encryption scheme, which can be used to encrypt a third portion of the data segment. To enable effective routing of the data segment, the first portion, which can be an internet protocol header, can remain unencrypted in a resulting encrypted data segment.

Various recited features of the claim invention, in addition to those described above, are neither disclosed nor suggested by the cited art. Specifically, the cited art fails to disclose or suggest at least the following features recited in Applicant's independent claims:

- generating a first hash value from the first portion of the first data segment (Claim 1);
- identifying a first encryption scheme from among a plurality of encryption schemes, the first encryption scheme being identified by the first hash value corresponding to the first portion of the first data segment (Claim 1);
- generating a first hash value from the first portion of the first encrypted data segment (Claim 25);
- identifying a first encryption scheme from among a plurality of encryption schemes, the first encryption scheme being identified by the first hash value corresponding to the first portion of the first encrypted data segment (Claim 25);
- a controller coupled to said input buffer and said encryption module, said controller being adapted to generate a first hash value from a first portion of the data segment and to dynamically select a set of encryption information for a current data segment to be encrypted based on data contained in a predetermined portion of the current data segment first encryption scheme from a plurality of encryption schemes, each encryption scheme comprising an encryption algorithm and an encryption key, and the first encryption scheme corresponding to the first hash value (Claim 40);

- an encryption module coupled to the controller and configured to utilize a computer processor to encrypt a second portion of the data segment using the first encryption scheme (Claim 40);

- a controller coupled to said input buffer and said decryption module, said controller being adapted to generate a first hash value from a first portion of the data segment and to dynamically select a set of encryption information for a current encrypted data segment to be decrypted based on data contained in a predetermined portion of the current encrypted data segment first encryption scheme from a plurality of encryption schemes, each encryption scheme comprising an encryption algorithm and an encryption key, and the first encryption scheme corresponding to the first hash value (Claim 58);

- a decryption module coupled to the controller and configured to utilize a computer processor to decrypt a second portion of the encrypted data segment using the first encryption scheme (Claim 58);

- generating a first hash value from the unencrypted first portion of the data segment (Claim 98);

- associating each of a plurality of potential hash values with a corresponding encryption scheme belonging to a plurality of encryption schemes (Claim 98);

- identifying a first encryption scheme of the plurality of encryption schemes, the first encryption scheme corresponding to a potential hash value that matches the first hash value (Claim 98);

- encrypting, with a computer processor, the unencrypted second portion of the data segment to provide an encrypted second portion by applying the first encryption scheme (Claim 98);

- generating a second hash value from the unencrypted second portion of the data segment (Claim 98);

- identifying a second encryption scheme of the plurality of encryption schemes, the second encryption scheme corresponding to a potential hash value that matches the second hash value (Claim 98);

- encrypting the unencrypted third portion of the data segment to provide an encrypted third portion by applying the second encryption scheme (Claim 98);

- generating a first hash value from the unencrypted first portion of the encrypted data segment (Claim 101);

- associating each of a plurality of potential hash values with a corresponding encryption scheme belonging to a plurality of encryption schemes (Claim 101);

- identifying a first encryption scheme of the plurality of encryption schemes, the first encryption scheme corresponding to a potential hash value that matches the first hash value (Claim 101);

- decrypting, with a computer processor, the encrypted second portion of the encrypted data segment to provide an unencrypted second portion by applying the first encryption scheme (Claim 101);

- generating a second hash value from the unencrypted second portion of the data segment (Claim 101);

- identifying a second encryption scheme of the plurality of encryption schemes, the second encryption scheme corresponding to a potential hash value that matches the second hash value (Claim 101); and

- decrypting the encrypted third portion of the data segment to provide an unencrypted third portion by applying the second encryption scheme (Claim 101).

Accordingly, each of Applicant's independent claims, Claims 1, 25, 40, 58, 98, and 101, recite features that are neither disclosed nor suggested by the cited art. Thus, Applicant's independent claims are patentable over the cited art. Applicant's dependent claims are likewise patentable over the cited art at least by virtue of their dependence on Applicant's independent claims, as well as for the additional novel and nonobvious features that the dependent claims recite. Therefore, Applicant respectfully submits that all pending claims are patentable over the cited art, and Applicant respectfully requests withdrawal of the §§ 102 and 103 rejections.

IV.   Fees

No fees are believed due with this submission. This *Response* is being filed within three months of the *Office Action*. Thus, no extension of time fee is believed due. Additionally, upon filing, Applicant paid for six independent claims and eighty-nine total claims, and this *Response* does not increase the number of independent claims or the total number of claims beyond those numbers. Thus, no claim fees are believed due. Nonetheless, the Commissioner is expressly

authorized to charge any fees deemed due, or credit any overpayment, to Deposit Account No. 20-1507 for acceptance of this submission.

CONCLUSION

This *Response* is believed a complete response to the *Office Action* of 2 December 2009. By this *Response*, Claims 1, 5, 7-10, 13, 16-20, 25, 28, 30-33, 36-37, 40-44, 47, 49-52, 55-61, 64, 66-69, 72-74, and 98-114 are pending in the Application for examination purposes, and the Application has been placed in full condition for allowance. It is respectfully requested that the rejections be withdrawn and that the case be processed to issuance in accordance with Patent Office business. Should the Examiner have any further questions or reservations, the Examiner is invited to telephone the undersigned Attorney at 404.885.3178.

Respectfully submitted,

/Alicia L. W. Brewster, Reg. #64706/

Alicia L. W. Brewster
Registration No. 64,706

Troutman Sanders LLP
Bank of America Plaza
600 Peachtree Street, N.E., Suite 5200
Atlanta, Georgia 30308-2216
United States
Phone: 404.885.3178
Fax: 404.962.6756